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# Effective Tables, Figures & Frequently Used Terms

Monterey, California, Naval Postgraduate School

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# ACQUISITION RESEARCH

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## HANDBOOK SERIES

### **Effective Tables, Figures & Frequently Used Terms**

**1 September 2011**

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## Preface

This handbook is one of a series of four produced for the Acquisition Research Program (ARP) at the Naval Postgraduate School. The purpose of the ARP Handbook Series is to provide helpful information in a user friendly format to assist graduate students and others in improving their research and writing skills.

The ARP Handbook Series includes:

- *Analysis Planning Methodology: For Theses, Joint Applied Projects & MBA Research Reports*
- *Writing Style & English Usage*
- *APA Citation Style (6th edition)*
- *Effective Tables, Figures & Frequently Used Terms*

For additional copies, please visit the Acquisition Research Program Office at the Graduate School of Business & Public Policy in Ingersoll 372. The handbook series can also be downloaded from our website, [www.acquisitionresearch.net](http://www.acquisitionresearch.net).



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## I. Acquisition Research Program Citation Style

The Acquisition Research Program (ARP) follows the citation guidelines in the *Publication Manual of the American Psychological Association* (sixth edition), known as APA. The ARP chose APA as its citation preference when the program began in 2003 because APA is a universally recognized standard among academic journals. The rationale behind this decision was that by citing ARP research in a consistent format, editorial resourcing and adaption for specific journal requirements would be more efficient. This release of the Effective Tables, Figures & Frequently Used Terms handbook introduces changes in APA's sixth edition and shows examples of effective tables and figures. It also updates the ARP's list of frequently used terms.

## II. Headings and Titles

Headings are an important part of a document because they create visual organization. The use of different heading levels signals to a reader the hierarchy of information within a document. In order to send the right signal to the reader about the information under a given heading, it is essential to correctly and consistently format headings.

### A. Guidelines for Effective Headings and Titles

- Headings and titles should be brief but specific.  
Analysis of Experiment 1 Results  
not,  
Analysis
- Headings and titles should use parallel construction.  
Analysis of Experiment 1 Results  
Evaluation of Experiment 1 Results  
not,  
Analysis of Experiment 1 Results



### III. Tables

The information in the following lists is based on guidelines presented in the *APA Publication Manual*. For more detailed information on effectively creating and formatting tables and figures, including numerous examples, see pages 125–167 of the *Publication Manual*.

#### A. Things to Remember

- Limit the content of your tables to essential information.
- Tables should be integral to the text, but should be designed so that they can be understood in isolation.
- Table layout should be logical and easily grasped by the reader.

#### B. Tips for Creating Effective Tables

- Use Word to create tables because this will reduce the chance of formatting problems later.
- Make tables that present the same type of data look the same.
- Label tables with brief but informative titles.
- Place items in a table that you want to compare next to each other.
- Make sure that all labels in a table are clearly placed next to whatever they are labeling.
- Every column should have a heading.

- Organize the layout of a table so that the most important data has the most prominent location.
- Use standard table formats so that a reader doesn't have to work to understand how the information in your table is organized.
- A table should make sense to a reader who has not read the text (i.e., the information needed to understand the table should be contained within the table).
- A table should augment the text but not duplicate it.
- Incorporate tables into the body of the paper by referring to them (using their table number—not by using the phrases “the table above” or “the table below”) within the text.
- Only use a table when a visual presentation of the information would more clearly communicate it to the reader than writing it out would.
- Do not clutter tables with extra information. Keep them concise.
- Do not overuse tables in the paper (apply the rule of less is more).

Table 1 is an example of an effective table taken from the *Publication Manual*. The shaded boxes contain information about the individual elements of the table.



**Table 1. APA's Guide to Creating a Table**  
(APA, 2010, p. 129)

table number: Table X

table title: Numbers of Children With and Without Proof of Parental Citizenship

column spanner: heading that identifies the entries in two or more columns in the body of the table

decked heads: heading that is stacked, often to avoid repetition of words in column headings

stub head: heading that identifies the entries in leftmost column

table spanner: heading that covers the entire width of the body of the table, allowing for further divisions

column heads: heading that identifies the entries in just one column in the body of the table

cell: point of intersection, between a row and a column

stub or stub column: leftmost column of the table, usually lists the major independent or predictor variables

table body: rows of cells containing primary data of the table

table note: three types of notes can be placed below the table, which can eliminate repetition from the body of the table

Grade	Girls		Boys	
	With	Without	With	Without
Wave 1				
3	280	240	281	232
4	297	251	290	264
5	301	260	306	221
Total	878	751	877	717
Wave 2				
3	201	189	210	199
4	214	194	236	210
5	221	216	239	213
Total	636	599	685	622

Note. General notes to a table appear here, including definitions of abbreviations (see section 5.16).

\*A specific note appears on a separate line below any general notes, subsequent specific notes are run in (see section 5.16).

\*A probability note (p value) appears on a separate line below any specific notes, subsequent probability notes are run in (see section 5.16 for more details on content).

## IV. Figures

### A. Types of Figures

- **Graphs:** typically display relationships (think x & y)
- **Charts:** generally display nonquantitative information
- **Maps:** display spatial information
- **Drawings:** show information pictorially
- **Photographs:** provide direct visual representation

### B. Things to Remember

- Figures should be simple and clear and should add value to the information presented in the paper.
- Figures should have lines that are smooth and sharp as well as typeface that is simple and legible.
- Axes and elements within figures should be labeled and units of measurement should be provided.
- Figure legends should give sufficient information to be understandable.

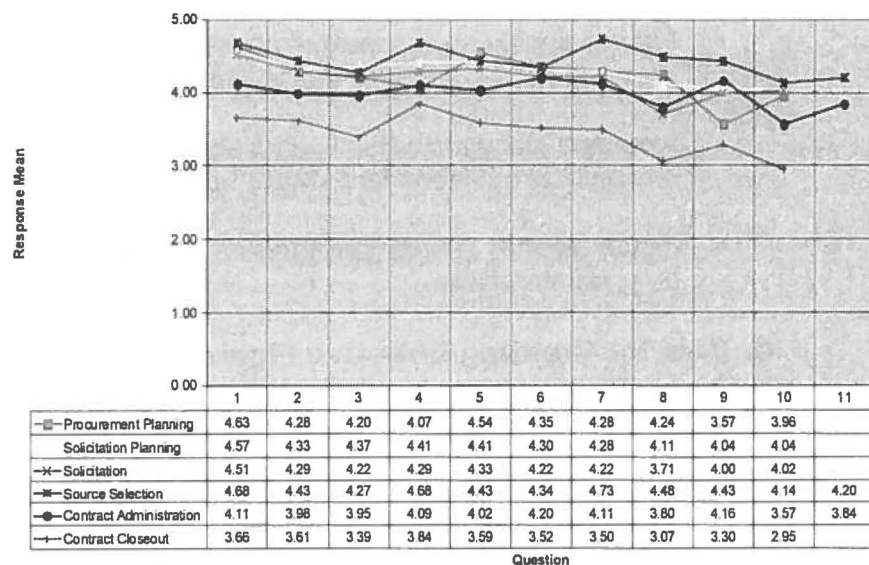
### C. Tips for Creating Effective Figures

- A figure should augment the text not duplicate it.
- Only include relevant information and graphics in a figure (no clutter).
- Make sure all elements of a figure are easy to read (large enough) and that none of the elements are blurry (use a high resolution).



- The purpose and message of a figure should be quickly identifiable.
- All comparable figures in the document should have a consistent presentation.
- Clearly label all elements of a figure.
- The figure title should be descriptive of the content of the figure.
- Incorporate figures into the body of the paper by referring to them (using their figure number) within the text.
- Do not overuse figures in the paper (apply the rule of less is more).

Figure 1 is an example of an effective figure.



**Figure 1. Sample Figure**  
(Rendon, 2010)

## IV. Frequently Used Terms in the ARP

This list is a guide for spelling words and terms that commonly appear in Acquisition Research Program (ARP) publications, including specific business and military terms. By no means is this list intended to be exhaustive. For a more comprehensive list, consult the online version of the DAU's *Glossary of Defense Acquisition Acronyms and Terms* (13th edition), which can be accessed on the DAU website (<https://dap.dau.mil/glossary/Pages/Default.aspx>).

### Numbers

21<sup>st</sup> century

9/11 (for September 11, 2001)

### A

air defense missile system

### B

B2B (business-to-business)

B2C (business-to-consumer)

B2E (business-to-enterprise)

bar code [n, adj]; bar coding

baseline

benchmark [n, v]

best practice [adj] (don't hyphenate as a modifier)

best value (don't hyphenate as a modifier)

best-in-class

boardroom

bottom line

business case

business-sensitive [adj]

buy [n]





buy-in [n]

## C

capability maturity (don't hyphenate as a modifier)

CD-ROM

cell phone

CEO (chief executive officer; does not need to be spelled out)

Certified Professional in Supply Management (CPSM)

CFO (chief financial officer; does not need to be spelled out)

chair (not -man/-woman/-person)

chat room

civil servants

color-coded

command and control

commercial

commercial off-the-shelf

conflict of interest

Continuing Education Hours (CEHs)

Continuing Education Units (CEUs)

Continuing Learning Points (CLPs)

Contract Administration (capitalize only when used to name the process in the CMMM)

contract award (don't hyphenate as a modifier)

Contract Closeout (capitalize only when used to name the process in the CMMM)

contract management (don't hyphenate as a modifier)

Contract Management Maturity Model (CMMM)

contracted out



contracted support

contracting out

corporate-level [adj]

cost benefit (don't hyphenate as a modifier)

cost effective

cost-effective [adj]

cost estimate

cost-estimate [adj]

cost-estimating

cost growth

cost saving [n]

cost-saving [adj]

coworker

CPO (chief purchasing officer; does not need to be spelled out)

cycle-time

## D

database

DAU (Defense Acquisition University)

decision-makers; decision-making

DFARS (Defense Federal Acquisition Regulation Supplement)

Department of Defense (DoD, not DOD)

Department of the Navy (DoN)

dollar amount

dot-com

downtime



## E

e-auction, e-mail, e-commerce, e-procurement, e-tool, etc.  
earned value management  
economies of scale  
end-to-end  
end user [n, adj]  
ERP (enterprise resource planning)

## F

FAR (Federal Acquisition Regulation)  
fishbone chart  
fixed-price contract  
flow path  
follow-up [n]  
*Fortune 500* and *Fortune 1,000*  
forward operating base  
*F* test

## G

GAO (General Accounting Office—before July 7, 2004)  
GAO (Government Accountability Office—after July 7, 2004)  
Global War on Terror

## H

handheld [n, adj]  
hard copy  
hazmat  
healthcare  
homepage (generic—use *website* instead)



hotspot

HR (human resources; does not need to be spelled out)

## I

industry  
industrywide (also nationwide, companywide, etc.)  
Internet  
intranet  
IT (information technology; don't hyphenate as a modifier)

## J

just-in-time (JIT)

## K

keynote  
key performance indicator (KPI)  
key performance parameter (KPP)  
key process area  
key system attribute (KSA)  
keyword (technology)  
knowledge management (KM; don't hyphenate as a modifier)  
knowledge-value added

## L

lead-time  
leading-edge [adj]  
lean (can be used alone as a noun; also lean management, lean purchasing, lean practices, etc.)  
Lean Six Sigma  
life cycle



life cycle costing  
life cycle procurement  
log in [v]  
login [n]  
low risk [n]  
low-risk [adj]  
lower priority

## M

M&A (mergers & acquisitions)  
M&S (modeling & simulation)  
macro-level  
micro-level  
mission-essential [adj]  
MRO (materials, repair, and operating, i.e., indirect materials)  
MRP (materials requirements planning)  
multicultural

## N

Naval Postgraduate School (NPS)  
nearshore; nearshoring  
Net (meaning Internet)  
Net-centric system (Network-centric system)  
non-value-added

## O

OEM (original equipment manufacturer)  
offline  
offshore; offshoring



OMB (Office of Management and Budget)  
onboard  
online  
on-site and off-site  
open architecture  
open system  
Operation Enduring Freedom  
Operation Desert Storm  
operating level  
OPM (Office of Personnel Management)

## P

performance-based  
PO (for purchase order)  
policy-maker  
pretest  
price/cost analysis  
private sector [n]  
private-sector [adj]  
proactive  
process capability maturity models  
process improvement (don't hyphenate as a modifier)  
process integrity  
Procurement Planning (capitalize only when used to name the process in the CMMM)  
procurement process (don't hyphenate as a modifier)  
procurement-sensitive [adj]  
program management  
project management



public sector [n]  
public-sector [adj]  
*p* value

## Q

## R

R&D (research & development)  
Real GDP  
real-time  
request for information (RFX)  
retake  
RFID (radio frequency identification)  
RFP (request for proposal)  
RFQ (request for quote)  
risk analysis (don't hyphenate as a modifier)  
road map  
ROI (return on investment)  
roll-out [n]  
run-time

## S

set covering (don't hyphenate as a modifier)  
short cut  
single sourcing  
Six Sigma  
skill set  
sole-source contract  
Solicitation (capitalize only when used to name the process in the CMMM)



Solicitation Planning (capitalize only when used to name the process in the CMMM)

source evaluation

source selection [n] (capitalize when used to name the process in the CMMM)

source selection process

spend [n] (the company's annual spend, business spend)

statement of work (SOW)

strategic sourcing (don't hyphenate as a modifier)

stock out [v]

stockout [n]

subsystem

supply chain management (SCM)

system of systems (hyphenate as a modifier)

## T

takeaway [adj]

takt time

third-party logistics (3PL)

third-party network (services, etc.)

thought-leadership

time frame

time-to-market

toolkit

top line

Total Quality Management (TQM)

trade-off

Ts & Cs (for terms and conditions; ampersand required)

*t* test



turnkey

two-bin system

## U

Under Secretary of Defense (Under Secretary is two words)

U.S.

username

## V

value added

## W

War on Terror

warfighter

waybill

web

webcast

website (preferred over home page)

widescale

workday

workflow

worklife

worldwide

## X Y Z



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